

## WHAT IS CLAIMED IS:

1. A method for invalidations comprising:
  - requesting an invalidation operation;
  - requesting a fill operation;
  - pipng the invalidation request one or more cycles upon receiving a fill request; and
  - performing invalidations on every block of an indexed set.
2. The method of claim 1 wherein the step of requesting an invalidation operation comprises the step of sending an address of the block.
3. The method of claim 2 wherein if no fill request is received, the method further comprising the steps of:
  - performing a tag array lookup; and
  - comparing addresses found in the index set to the sent address.
4. The method of claim 3 further comprising the step of clearing valid bit in the tag array if the addresses match.
5. The method of claim 2 wherein if a fill request is received, the method further comprising the step of pipng the step of requesting invalidation operation to the next cycle.
6. The method of claim 5 wherein the step of pipng one or more cycles occurs for three cycles.
7. A method for invalidation comprising:
  - requesting an invalidation operation;

- requesting an operation;
  - piping the invalidation request one or more cycles upon receiving an operation request; and
  - performing invalidations on every block of an indexed set.
8. The method of claim 7 wherein the step of requesting an invalidation operation comprises the step of sending an address of the block.
9. The method of claim 8 wherein if no operation request is received, the method further comprising the steps of:
- performing a tag array lookup; and
  - comparing addresses found in the index set to the sent address.
10. The method of claim 9 further comprising the step of clearing valid bit in the tag array if the addresses match.
11. The method of claim 8 wherein if an operation request is received, the method further comprising the step of piping the step of requesting invalidation operation to the next cycle.
12. The method of claim 11 wherein the step of piping one or more cycles occurs for three cycles.